## **REMARKS**

The Applicants appreciate the Examiner's careful examination of this case.

Reconsideration and re-examination are respectfully requested in view of the instant amendments and remarks.

The Applicant agrees with paragraphs 1 and 2 of the Office Action on the matter of Priority.

The Applicant agrees with the Examiner's comment as set out in paragraph 3 of the Office Action.

New corrected drawings are filed herewith as requested in paragraph 4 of the Office Action.

With regard to paragraph 5 of the Office Action, the specification has been amended as requested by the Examiner to include the various section headings. Where there was no appropriate section heading, the Applicant has not inserted the section heading. This was believed to be clearer than using the phrase "not applicable" kindly suggested by the Examiner. Many USA patent specifications are accepted without standard section headings and the words "not applicable" and the Examiner is respectfully asked to allow this for the present patent application.

In paragraph 6 of the Office Action, the objection of the Examiner to the specified wording was noted. Amended claim 1 employs wording which is believed to meet the objection of the Examiner.

With regard to paragraph 7 of the Office Action, the objection of the Examiner was noted. The amended claim 1 has been amended to refer to "a microprocessor controller" which is wording kindly suggested by the Examiner.

With regard to paragraph 8 of the Office Action, line 1 of claim 2 has been amended to correctly refer to the control circuit instead of the flow transducer.

With regard to paragraph 9 of the Office Action, it is believed that the words "in which" are equivalent to the word "wherein". It would be preferred to retain the words "in which" if at all possible. The Examiner is respectfully asked to reconsider the objection and allow the words "in which".

With regard to paragraph 10 of the Office Action, claim 1 has been amended to specify that the microprocessor controller is such that it controls the motor to cause the variable orifice valve to vary its orifice size in response to at least one of flow and pressure signals obtained consequent upon the person breathing into the mouthpiece, whereby the orifice size maintains a constant pressure and enables measurement of the flow rate generated by the person, or the orifice size maintains a constant predetermined flow rate and enables the measurement of the pressure generated by the person. Thus the Applicant's microprocessor monitors the flow and volume. The monitored information in the form of the flow and volume signals is used to control the orifice size of the variable orifice valve. In Jiang et al, US 6,030,350 A (hereinafter referred to as Jiang) there is no feedback of flow or volume signals to the Jiang valve controller

5. In Jiang, the valve 4 is controlled to be either open or shut. In Jiang, there is no connection between the flow and pressure measurements and the control of the Jiang valve 4. All Jiang has is a manual on/off switch 6, see column 9 lines 34 – 36 of Jiang. Thus the Jiang valve controller 5 is not as required by the Applicant's amended claim 1, i.e. the Jiang valve controller 5 is not able to vary the orifice size of the Jiang valve 4 in response to at least one of flow and pressure signals obtained consequent upon the person breathing into the mouthpiece, whereby the orifice size maintains a constant predetermined pressure and enables measurement of the flow rate generated by the person, or the orifice size maintains a constant predetermined flow rate and enables measurement of the pressure generated by the person.

The Applicant's amended claim 1 is thus believed to be novel and inventive over Jiang. Claims 2, 3, 4, 6 and 13 are believed to be allowable because they include all of the features of the amended claim 1, which claim 1 is believed to be allowable for the above stated reasons.

With regard to paragraph 11 of the Office Action, claim 5 is believed to be allowable because it includes all of the features of claim 1, and claim 1 is believed to be allowable for the reasons stated above. In particular, claim 1 is believed to be novel and inventive over Jiang, and this situation is not affected by the combination of Jiang with Bacaner et al, US 4,966,141 (hereinafter referred to as Bacaner). The Examiner has only cited Bacaner against claim 5 and clearly Bacaner has no effect on the novelty or inventive step of the Applicant's amended claim 1.

With regard to paragraph 12 of the Office Action, claims 7-12 are believed to be allowable because they include all of the features of claim 1, which claim 1 is believed to be allowable for the reasons stated above. In addition to claims 7-12 including all of the features of the Applicant's amended claim 1, it is noted that the Examiner agrees that Jiang does not explicitly teach the type of valve structures claimed in claims 7-12.

With regard to paragraph 13 of the Office Action, the prior art made of record and not relied upon by the Examiner has been carefully considered. This prior art is not believed to affect the allowability of claims, nor the above submissions.

In view of the Applicant's duty to disclose all known prior art, it is hereby disclosed that the Applicant has a corresponding European Patent Application publication No 1397994. In this European patent application, the following prior art was cited.

WO-A-98/14115 US-A-3 924 612 US-A-4 966 141 US-A-6 066 101 US-A-6 067 983 US-B1-6 379 311

The prior art cited on the European patent application has been carefully considered and it is not believed to affect the allowability of claims, nor the above submissions.

## **CONCLUSION**

Each of the Examiner's rejections has been addressed or traversed. It is respectfully submitted that the application is in condition for allowance. Early and favorable action is respectfully requested.

If for any reason this Response is found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution, please telephone the undersigned or his associates, collect in Waltham, Massachusetts at (781) 890-5678.

Respectfully submitted,

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JDS/jmc